Jantz–Lidar Mapping of Forest Vertical Structure In Colombia

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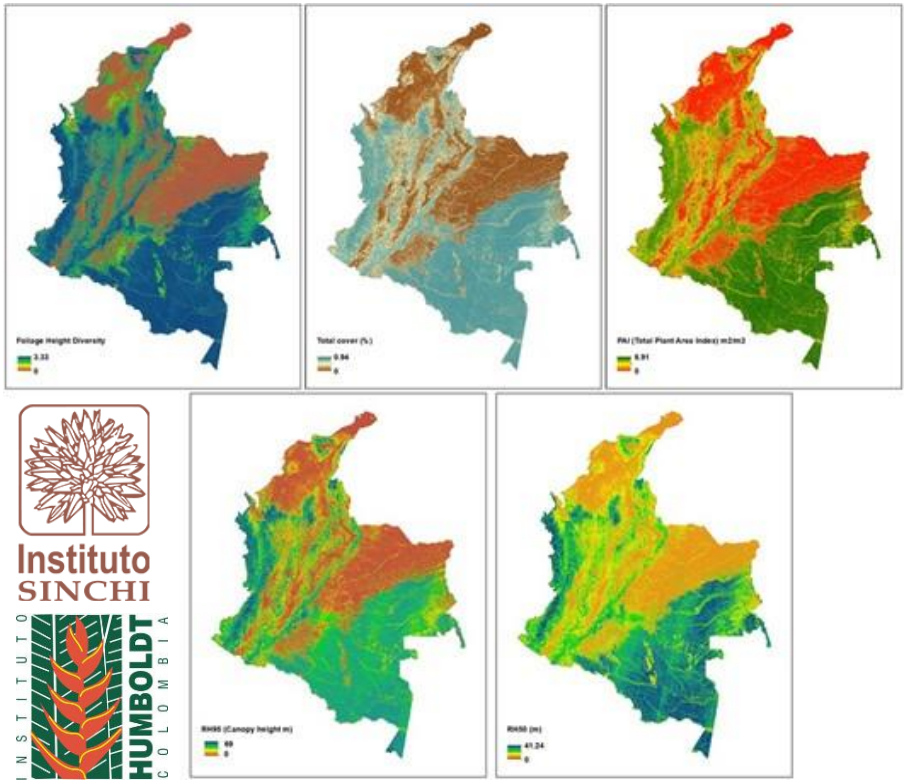
1. Overview - We worked with the Humboldt Institute and SINCHI (Amazonian Scientific Research Institute) to use Global Ecosystem Dynamics Investigation (GEDI) and aircraft lidar to map forest structure in Colombia and develop empirical relationships between tree diversity and forest structure for biodiversity mapping and monitoring.
2. Outreach
    1. Y1 - workshop presenting lidar concepts and code to process lidar data
    2. Y4 – contributed material to a graduate class, Spatial Analysis of Environmental Data, taught by C. Fagua (ad honorem) at Universidad Nacional de Colombia (in progress, October 21 – end of January 22).
3. Decision Support
    1. Shared forest structure datasets to support collaborative eBird-Humboldt effort to map bird diversity in Caribe, Andes, and Choco regions.
    2. Co-generating forest structure and tree diversity maps with SINCHI to inform biodiversity priorities in the Colombian Amazon.



4. Publications
    1. Fagua, J.C., Jantz, P., Burns, P., Massey, R., Buitrago, J.Y., Saatchi, S., Hakkenberg, C. and Goetz, S.J., 2021. Mapping tree diversity in the tropical forest region of Chocó-Colombia. *Environmental Research Letters*, *16*(5), p.054024.
    2. Fagua, J.C., Jantz, P., Rodriguez-Buritica, S., Duncanson, L. and Goetz, S.J., 2019. Integrating LiDAR, Multispectral and SAR Data to Estimate and Map Canopy Height in Tropical Forests. Remote Sensing, 11(22), p.2697.